

ABSTRACT OF THE DISCLOSURE

To present a mode-locked fiber laser capable of exhibiting the mode locking function of the saturable absorber sufficiently without requiring adjustment of optical axis. That is, by enveloping the end face at one end side of an EDF 11 (including the end face of a waveguide 21) by a saturable absorber 15 affixed in a direction of one end of the EDF 11 to a gold mirror 16, a beam of large density can be applied to the saturable absorber 15 without using lens requiring adjustment of optical axis, and further almost all of the beam passing through the saturable absorber 15 can be returned to the waveguide 21 of the EDF 11.